



## UNITED STATES DEPARTMENT OF COMMERCE

## Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/293,011 04/16/99 GORDON Y 07442009001

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EXAMINER

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ART UNIT PAPER NUMBER

2611

DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/293,011</b>	Applicant(s) <b>Gordon et al</b>
	Examiner <b>John W. Miller</b>	Art Unit <b>2611</b>



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1)  Responsive to communication(s) filed on Feb 27, 2001

2a)  This action is FINAL.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle* 835 C.D. 11; 453 O.G. 213.

#### Disposition of Claims

4)  Claim(s) 1-4, 6, 7, 9, 11, 22, and 27-69 is/are pending in the applica

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from considera

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-4, 6, 7, 9, 11, 22, and 27-69 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirem

#### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

15)  Notice of References Cited (PTO-892)

18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20)  Other: \_\_\_\_\_

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***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 22, and 27-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

All of the above-noted claims are indefinite (that is, of indeterminate scope) because they depend on canceled claims (5, 20, and 26, respectively).

*Should BE  
102*

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 9, 11, 33-36, 38-40, 42-44, 49-52, 54-57, 59-63, and 67-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (5,991,306), previously cited by the examiner.

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As to claim 1, note the Burns et al reference which discloses a pull-based, intelligent caching system for a network system. Content service providers are connected to local service providers via an interactive distribution network. The local service providers facilitate the delivery of the content from the content provider to multiple subscribers. The local service providers schedule the delivery of frequently requested content from the content provider prior to a peak time when the subscribers are likely to request content. The content is downloaded during off-peak hours and cached at the local service providers for serving to the subscribers during the ensuing peak time. In this manner, the frequently requested content is already present at the local service providers and ready to be served to the subscribers when they actually request it. When the content is finally requested, the data is streamed continuously in a real-time manner for just-in-time rendering at the subscriber computer. Note Figure 2 and the associated disclosure. The claimed plurality of local servers... is met by the local service providers, the ISPs 56, and the claimed at least one storage server... is met by the content server 52. The reference further discloses that the ISPs 56 include continuous media servers (CMSs) 74 which provide continuous media streams, such as audio and video data using a disk array data storage system having associated therewith a memory map storing the locations of, or pointers to, particular audio and video data streams, col. 6, lines 66+. In operation, a requested video stream is retrieved by a processor using the associated pointer, and the stream is provided to the subscriber over communication lines 66, 68. This processor is naturally in communication with the content

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server 52 (via the cache server 72, Fig. 2) in order to download audio and video data to the disk array data storage system for continuous media applications.

As to claim 3, the reference discloses subscriber PCs 58 and 60. The reference also discloses an alternative cable television environment consisting of cable headend servers, cable headends, and cable networks, in which television receivers are inherent.

As to claim 4, the ISPs 56 have servers which are designed to cache and serve the most frequently requested continuous data streams, such as video and audio data streams, and employ a disk array data storage system of finite capacity. Consequently, priority storage is considered inherent for data considered most ‘frequently requested’.

As to claim 6, as noted above, the processor associated with the CMS 74 of the ISP 56 accesses a memory map which defines the logical locations of segments of audio or video streams which are stored across the disk array.

As to claims 9 and 11, the disclosed system is clearly an interactive, two-way, on-demand video system which dynamically provides access to video streams at the request of subscribers.

As to claim 34-36, 2, 38-40, 42, and 43, as noted above for claim 4, the reference clearly indicates that the most frequently requested content, whether that be Web pages or continuous media, is intelligently pre-cached in order to avoid latency problems. Frequently requested content is statistically identified and downloaded at off-peak hours, and stored at the CMS 74 accordingly. The ‘alterable property’ associated with the continuous media is the desirability of the media as defined by the frequency with which it is requested.

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As to claim 44, the above-noted processor associated with the CMS 74 is, as indicated, in communication with the processor of the content server 52 for the purpose of coordinating the caching or downloading of continuous media. It can therefore be said that the flow of content is managed in a distributed fashion.

Claims 33, 49-52, 54-57, 59-63, and 67-69 are met by that discussed above.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 37, 41, 45-48, 53, 58, and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (5,991,306), previously cited by the examiner.

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As to claims 37, 45, and 53, the reference discloses the collection of viewer statistics at individual ISPs 56 for caching purposes, and points to changes in taste based on changes in demographics and geographical regions. However, such centralized statistical collection and programming control is well-known in the cable television art when one is concerned with the programming for a collection of cable television headends. The advantage for centralizing control over priority designations for continuous media selections is that such processing is otherwise not required at the disparate headends. Further, continuous media, as opposed to Web page media, is often uniformly liked over broad regions, and consequently lends itself to the arrangement. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify the Burns et al system to attach priority to continuous media based on the statistical analysis of several ISPs/headends for the stated advantage.

As to claim 41 and 58, it can be said that the popularity of a given continuous media presentation dictates the revenue projections that headend providers would attach to the media. Assuming arguendo, it is well-known in the cable television art to cache new releases for video-on-demand purposes and to attach a higher service charge to such presentations for the purpose of capitalizing on new media. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify the Burns et al system accordingly for the stated advantage.

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As to claims 46-48 and 64-66, the Burns et al reference is silent as to a streaming control process, yet such control is notoriously well-known in the art of video-on-demand as a mechanism for imparting VCR-like control, such as pause, fast-forward, and reverse, to the client-server environment. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify the Burns et al system with such video stream control to make the presentation of continuous media more desirable to the user.

### *Conclusion*

7. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Assistant Commissioner for Patents  
Washington, D.C. 20231

on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

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Signature: \_\_\_\_\_

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### **Certificate of Transmission**

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) \_\_\_\_\_ - \_\_\_\_\_ on \_\_\_\_\_.  
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\_\_\_\_\_  
Signature: \_\_\_\_\_

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

8. Any response to this action should be:

(a) mailed to: Commissioner of Patents and Trademarks

Washington, D.C. 20231

(b) or faxed to: (703) 872-9314 for either formal communications intended for entry, or informal or draft communications (please label "PROPOSED" or "DRAFT")

(c) or hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor  
(Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John W. Miller whose telephone number is (703) 305-4795. The examiner can normally be reached on Monday through Friday from 8:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached at (703) 305-4380. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

John W. Miller

May 20, 2001

  
John W. Miller  
Primary Examiner  
Art Unit 2611